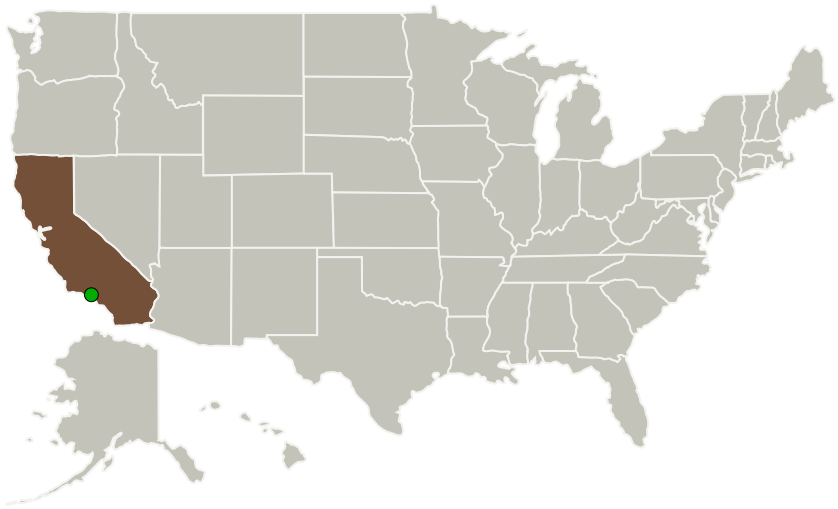
Compact, Low Power, Readout Electronics for KID Arrays, Phase I

Completed Technology Project (2016 - 2016)

Project Introduction

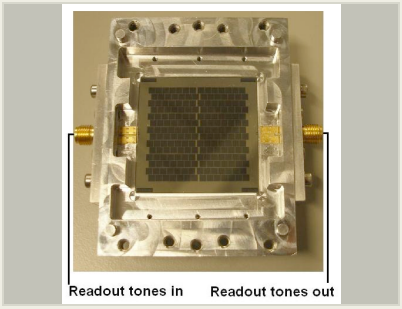
We propose to demonstrate a low power radiation hard readout system for frequency multiplexing of large format arrays of Kinetic Inductance Detectors (KIDs). Large format arrays of superconducting detectors are a leading technology for a number of future NASA missions described in the recent astrophysics roadmap, ?Enduring Quests ? Daring Visions? (Koubeliotou, et al.)

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Space Micro, Inc.	Lead Organization	Industry	San Diego, California
Jet Propulsion Laboratory(JPL)	Supporting Organization	NASA Center	Pasadena, California

Primary U.S. Work Locations
California



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Project Transitions

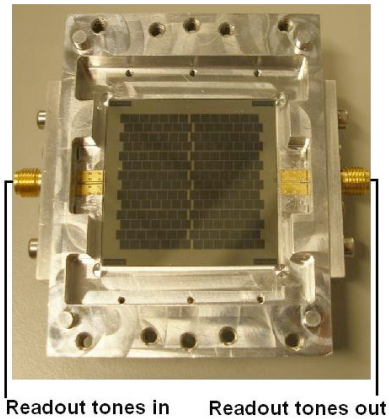
June 2016: Project Start

December 2016: Closed out

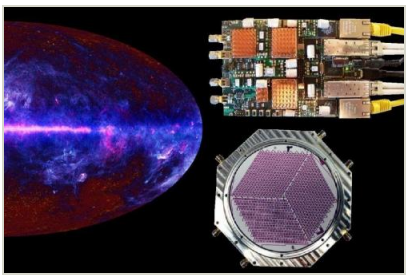
Closeout Documentation:

- Final Summary Chart*(https://techport.nasa.gov/file/139653)*

Images



Briefing Chart Image
Compact, Low Power, Readout Electronics for KID Arrays, Phase I *(https://techport.nasa.gov/image/128035)*



Final Summary Chart Image
Compact, Low Power, Readout Electronics for KID Arrays, Phase I Project Image *(https://techport.nasa.gov/image/134214)*

Organizational Responsibility

Responsible Mission Directorate:
Space Technology Mission Directorate (STMD)

Lead Organization:
Space Micro, Inc.

Responsible Program:
Small Business Innovation Research/Small Business Tech Transfer

Project Management

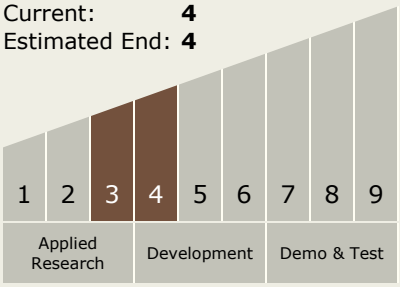
Program Director:
Jason L Kessler

Program Manager:
Carlos Torrez

Principal Investigator:
Dave J Strobel

Technology Maturity (TRL)

Start: **3**
Current: **4**
Estimated End: **4**



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Completed Technology Project (2016 - 2016)

Technology Areas

Primary:

- TX08 Sensors and Instruments
  - TX08.1 Remote Sensing Instruments/Sensors
    - TX08.1.1 Detectors and Focal Planes

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System